

Contract No. F41624-01-D9008
Task Order No. 2006 Modification 01

**2ND SEMIANNUAL 2004
PROCESS MONITORING REPORT
JULY 2004 THROUGH DECEMBER 2004
GROUNDWATER TREATMENT SYSTEM
BUILDING 550, FORMER MARCH AFB, CALIFORNIA**

AUGUST 2005

PREPARED FOR:

**AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE (AFCEE)
ENVIRONMENTAL SERVICES OFFICE
BASE CLOSURE RESTORATION DIVISION
BROOKS CITY-BASE, TX 78235**

PREPARED BY:

**EARTH TECH
1461 EAST COOLEY DRIVE, STE 100
COLTON, CALIFORNIA 92324**

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFRPA	Air Force Real Property Agency
ARB	Air Reserve Base
bgs	below ground surface
BRAC	Defense Base Realignment and Closure
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CMI	Corrective Measures Implementation
EPA	Environmental Protection Agency
GAC	granular-activated carbon
gpm	gallons per minute
JPA	Joint Power Authority
MTBE	methyl tertiary butyl ether
O&M	operation and maintenance
PAT	pump and treat
PMR	Process Monitoring Report
RWQCB	Regional Water Quality Control Board
SVE	soil vapor extraction
TMB	trimethylbenzene
TO	task order
TPH	total petroleum hydrocarbons
VOC	volatile organic compound

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

This Process Monitoring Report (PMR) is prepared for the Air Force Center for Environmental Excellence (AFCEE) under Contract No. F41624-01-D-9008, Task Order (TO) 2006, Building 550 Corrective Measures Implementation (CMI). The work is being conducted under the direction of the Air Force Real Property Agency (AFRPA), and carried out at Building 550 on land located within the former March Air Force Base (AFB). The work is an extension of an ongoing remedial action at the site.

The California Regional Water Quality Control Board (RWQCB), Santa Ana Region and the Air Force agreed to proceed with remediation at Building 550. Remedial equipment for treatment of soil at the site and groundwater beneath the site was installed during the first part of 2000 (Tetra Tech, 2002). The scope of this project consists of operation and maintenance (O&M) of the installed remediation systems. The soil vapor extraction (SVE) and the groundwater pump-and-treat (PAT) systems at the site have been monitored and operated by Earth Tech since January 1, 2003.

The catalytic-oxidation unit treated vapors from only one SVE well (VE-03) until April 4, 2003. Due to low concentrations of vapors that the SVE system extracted, the SVE system was shut down on April 4, 2003, per Air Force direction after verbal approval from the RWQCB had been obtained. Discussions of the SVE operation and total removed contaminants from the vadose zone can be found in the previous process monitoring report (Earth Tech, 2003b).

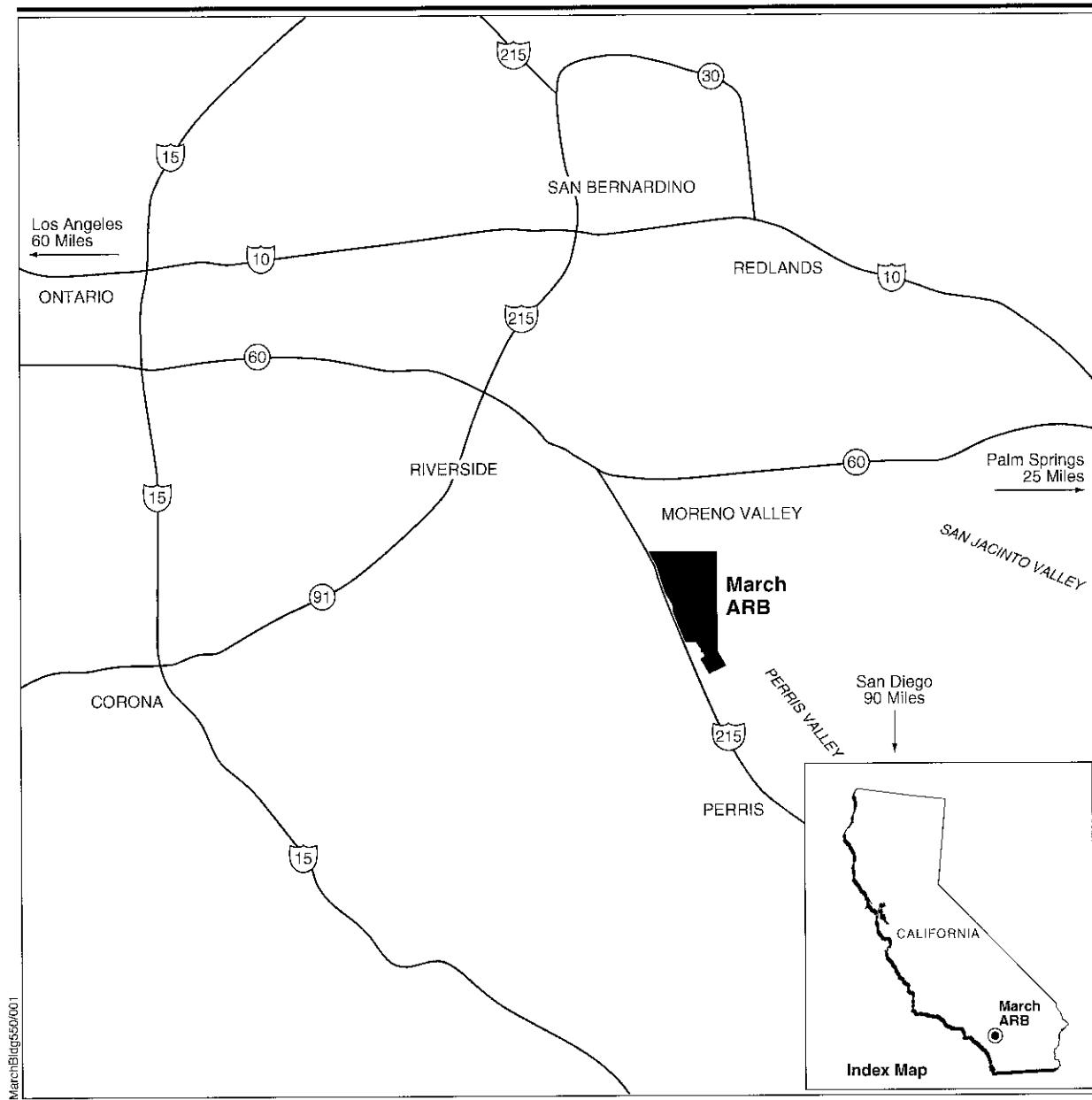
Under this TO, Earth Tech monitors the influent and effluent streams from the groundwater PAT system, performs routine groundwater sampling, collects other operational data, performs data interpretation and evaluation, prepares periodic system reports, and maintains or repairs existing equipment as needed.

1.2 REPORT CONTENTS

This report summarizes O&M activities of the groundwater PAT system that was installed at Building 550 at March AFB, California, for the period from July 2004 through December 2004. The report is presented in five sections: introduction; system description; system operations, maintenance, and performance; conclusion and recommendations; and references. Two appendices are included; one that provides validated analytical results for all samples collected at the site during this reporting period (Appendix A), and one with data validation reports (Appendix B).

1.3 SITE BACKGROUND

The former March AFB is approximately 60 miles east of Los Angeles and 5 miles southeast of Riverside, California (Figure 1-1). It is situated along U.S. Interstate Highway 215, which connects the cities of Riverside and San Diego. In 1993, the Defense Base Realignment and Closure (BRAC) Commission recommended that March AFB be realigned. In 1996, the base was divided into two management units. The portion of the base not retained for military use is managed by AFRPA, which includes Building 550 and the surrounding area. The second management unit is the current Air Reserve Base. March Air Reserve Base (ARB) comprises approximately 2,700 acres of land and is surrounded by the cities of Riverside, Moreno Valley, and Perris, and an unincorporated area of Riverside County to the southwest (Tetra Tech, 1999a).



**Vicinity Map
March Air Reserve
Base**



Figure 1-1

Building 550 is an abandoned gas station on the southwest corner of the intersection of Riverside Drive and Castle Street (Figure 1-2) at the former March AFB, east of the current ARB. Though the site is designated as Building 550, two other buildings still exist at the site. Building 550 is a circular building and is the former cashier's kiosk and associated pump islands; Building 549 contains the former car rental office, service bays, and auto parts store; and Building 548, situated at the southwest portion of the site, contains additional former service bays. The buildings are still physically there, but are not currently active facilities. The site is paved and contains entry and exit drives and parking areas.

1.4 BUILDING 550 CORRECTIVE MEASURES IMPLEMENTATION OBJECTIVES

The objective for the CMI at Building 550 is to continue operation of the groundwater PAT system at the site in order to remove contaminants from groundwater. In support of this objective, Earth Tech continues to:

- Perform O&M activities for the groundwater PAT system currently operating at the site. It is anticipated that the system will be operated and maintained according to the previous schedule. Also, Earth Tech will perform any needed repairs or upgrades to the systems.
- Quantify the contaminant concentrations, mass removal rates, and total mass removed by the groundwater PAT system.
- Establish the optimum operating parameters for the groundwater PAT system such that efficiency and long-term system operations are maximized.
- Sample and analyze influent and effluent streams from the groundwater PAT system in accordance with the air and water discharge requirements.
- Document operational data and recommend process modifications or solutions to problems.

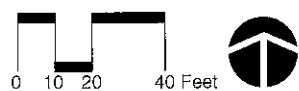
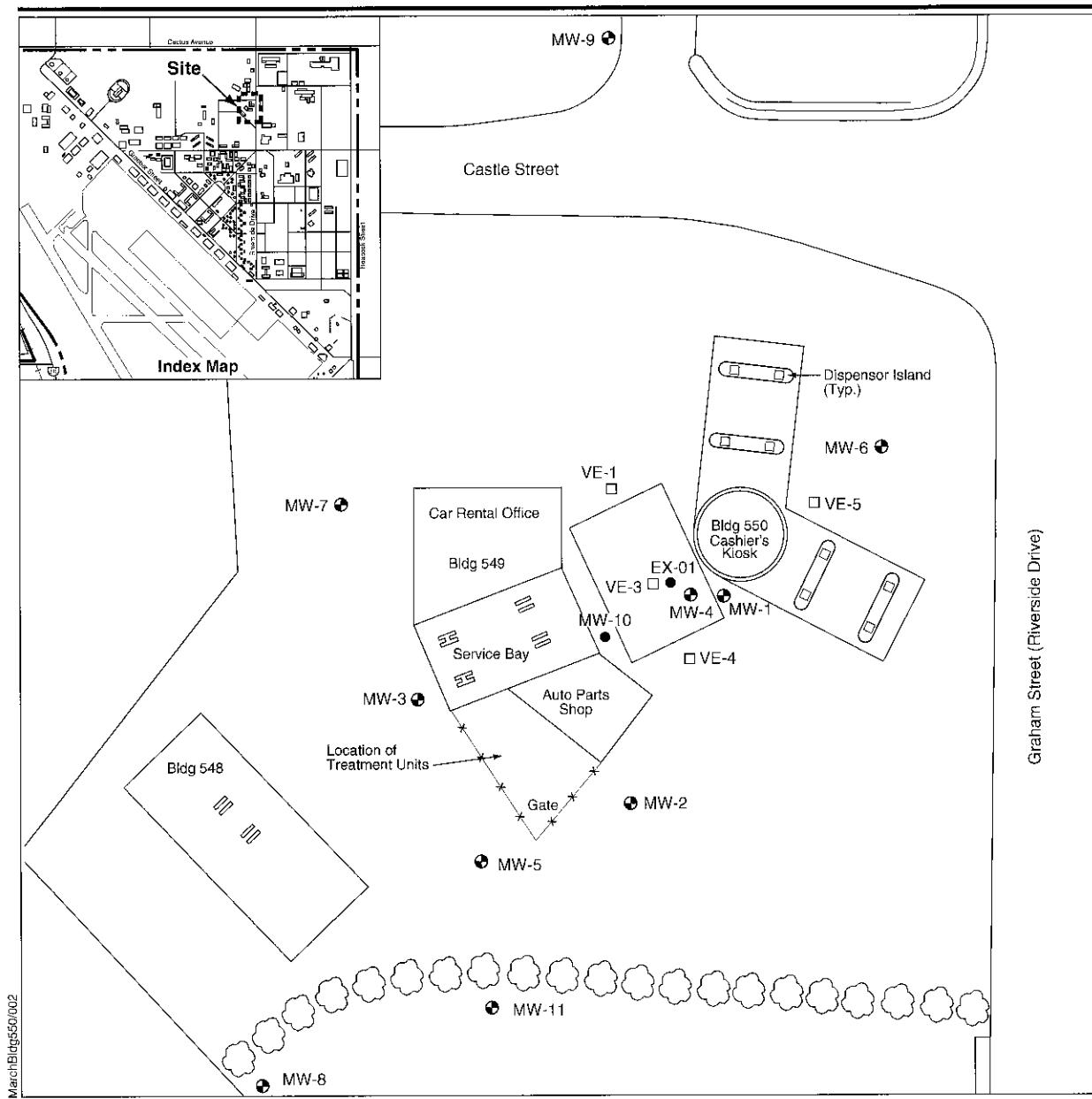


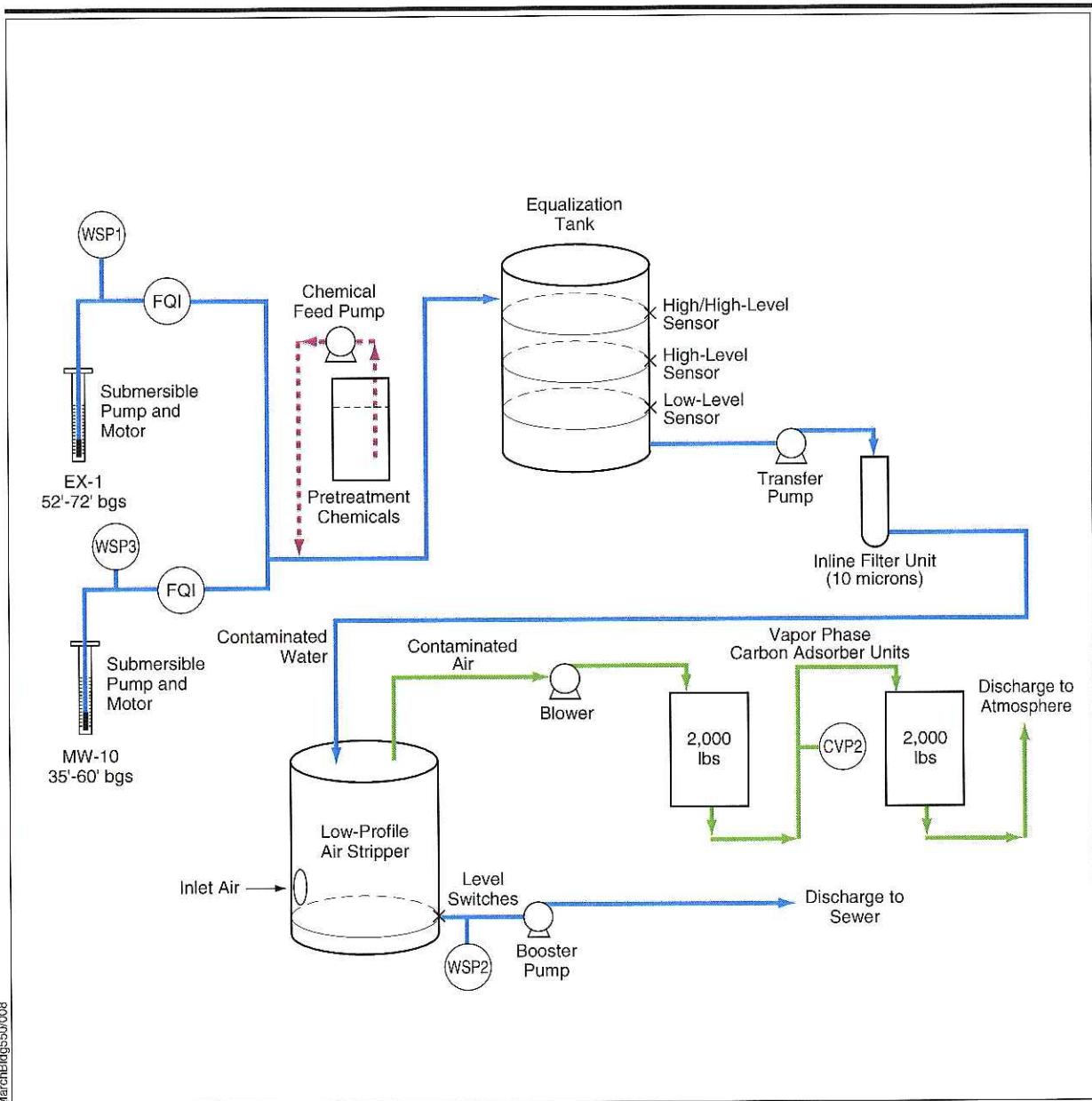
Figure 1-2

2.0 SYSTEM DESCRIPTION

2.1 REMEDIAL SYSTEM

The groundwater PAT system at Building 550 originally consisted of only one groundwater extraction well (EX-01) screened from 52 to 72 feet below ground surface (bgs). MW-10, a monitoring well screened from 35 to 60 feet bgs and located southwest of extraction well EX-01, was converted to a groundwater extraction well in May 2003 and began continuous operation on June 2, 2003. Water is pumped from the two downhole pumps (EX-01 and MW-10) to the surface and into an equalization tank. A pretreatment chemical, NALCO 8357, is added through a metering pump to prevent downstream scale formation in the piping system. Once the equalization tank fills to a predetermined level, the high level switch initiates the transfer pump, which passes the contaminated water through a low-profile air-stripping system. The extracted vapors are then passed through two granular-activated carbon (GAC) vessels (in series) to remove volatile organic compounds (VOCs), and the effluent water is discharged into the sewer system.

Figure 2-1 presents a schematic process flow diagram of the system.



EXPLANATION

- WSP1: Sample Port
- Groundwater Process Flow Direction: Blue arrow
- bgs: below ground surface
- lbs: pounds
- FQI: Flow Meter
- Chemical Flow Direction (as needed): Dashed red line
- Air Flow Direction: Green arrow

Process Flow Diagram Groundwater Pump and Treat System Building 550 Former March Air Force Base, California

Figure 2-1

3.0 SYSTEM OPERATIONS, MAINTENANCE, AND PERFORMANCE

This section summarizes the O&M activities of the Building 550 groundwater PAT system since startup with emphasis on the operational period between July 1 and December 31, 2004. The system's O&M activities are discussed, followed by an evaluation of the system's operation, analytical results, and run time during this reporting period.

3.1 SUMMARY OF ACTIVITIES

Maintenance of the groundwater PAT system was performed during the current reporting period as recommended by the manufacturers. System maintenance has been conducted on a weekly basis to ensure satisfactory extraction well and treatment system performance, and to determine operating characteristics of the system.

Per the agreement between the Air Force and the RWQCB during the April 22, 2004 technical meeting, sampling and reporting frequencies were reduced to fund potential site characterization and to implement possible alternative corrective measures. The sampling frequency of the influent was reduced from monthly to quarterly, while the sampling frequency for the system effluent remained monthly. The reporting frequency was reduced from quarterly to semiannually.

The groundwater PAT unit treated contaminated groundwater from two extraction wells (EX-01 and MW-10) during the reporting period. Due to slow groundwater recharge in EX-01, the extraction pump does not operate continuously and is controlled by water level switches. MW-10, a groundwater monitoring well converted to an extraction well in May 2003, operates continuously at a lower flow rate since it started operation. During this reporting period, routine system O&M was conducted weekly to ensure proper system performance. This consisted of checking operation of the submersible pumps, water levels in the extraction wells, connectors and pipefittings, pressure gauges, and recording various system data in order to measure system performance. Nonroutine O&M required as a result of system improvement, inspection, and modification included the following:

- On September 10, 2004, the EX-01 flow meter was removed and replaced with a new Neptune flow meter.
- On November 5, 2004, the blower and transfer pump were shut off because the air stripper was not operating properly. The air stripper was then removed for cleaning.
- On November 10, 2004, the cleaned air stripper was reinstalled and the system was restarted. The system was then checked and verified to be operating properly.

Table 3-1. Summary of Monthly System Operation and Performance

Month	Groundwater Treated (gallons)	Average Flow Rate (gpm)
Jan 03	11,900	0.30
Feb 03	3,550	0.08
Mar 03	13,860	0.35
Apr 03	21,300	0.47
May 03	45,540	0.98 ^(a)
Jun 03	45,177	1.13 ^(a)
Jul 03	37,103	0.92 ^(a)
Aug 03	35,950	0.86 ^(a)
Sep 03	35,975	0.81 ^(a, b)
Oct 03	27,740	0.77 ^(a)
Nov 03	37,990	0.75 ^(a)
Dec 03	27,930	0.72 ^(a)
Jan 04	13,970	0.31
Feb 04	42,530	0.82
Mar/Apr 04	24,340	0.37
May 04	56,680	1.13
Jun 04	45,300	1.05
Jul 04	45,680	0.79
Aug 04	29,989	0.77
Sep 04	21,345	0.49
Oct 04	23,599	0.48
Nov 04	25,307	0.50
Dec 04	20,140	0.52
Total	692,895	Average 0.66

Note:

- (a) As of May 2003 the average flow is calculated by adding the total gallons extracted from EX-01 and MW-10 together and dividing them by the time period. MW-10 began operation on May 21, 2003.
- (b) Between 8/26/03 and 9/12/03 the flow totalizer on MW-10 was not operating properly. Total flow for MW-10 during this period is estimated.

gpm = gallons per minute

During the reporting period, July 1 through December 31, 2004, the system processed approximately 166,060 gallons of contaminated groundwater at an average flow rate of 0.59 gallons per minute (gpm). Details of monthly system average flow rates and treated groundwater since January 2003 are presented in Table 3-1.

3.2 GROUNDWATER

This section describes concentrations in the groundwater extraction wells and the amount of contaminants removed from the groundwater during this reporting period.

3.2.1 Groundwater PAT System Analytical Results

Water samples were collected from the extraction wells on a quarterly basis starting in April 2004. Prior to this, they were sampled on a monthly basis. There was no change in the collection of effluent water samples from the groundwater PAT system during this period. They were collected on a monthly basis to

ensure constant monitoring of effluent releases to the base sanitary sewer system. In addition, an air sample from the outlet of the first vapor phase GAC canister was collected monthly to check for early breakthrough of contaminants.

All analytical results for water and air samples associated with the groundwater PAT system collected during this reporting period have been validated and are presented in Appendix A. Data validation reports for this period are presented in Appendix B.

3.2.1.1 System Influent Concentrations.

Analytical results for water samples collected from each of the groundwater extraction wells since MW-10 started extraction in May 2003 are presented in Table 3-2. Table 3-3 provides details on the system influent concentrations since startup in March 2002. Once MW-10 began operation on May 21, 2003, weighted averages of analytical results for the system influent (i.e. averages of EX-01 and MW-10 constituent values) were calculated and reported in Table 3-3. Prior to that, only the results from EX-01 were used and reported.

3.2.1.2 System Effluent Concentrations.

Analytical results for water samples from the system effluent collected during the reporting period and previous sampling events are summarized in Table 3-4. During the reporting period, methyl tertiary butyl ether (MTBE) was detected in each of the system effluent samples. No other contaminants of concern were detected during this reporting period.

3.2.1.3 Analytical Results for Vapor-Phase GAC.

An air sample was collected from the sampling port in between the two vapor-phase GAC vessels to check for early breakthrough of contaminants. Samples were collected in summa canisters on a monthly basis and analyzed for TPH using the U.S. Environmental Protection Agency (EPA) Method TO-3 and for VOCs using U.S. EPA Method TO-14A. Analytical results since January 2003 are presented in Table 3-5.

3.2.2 Mass of Contaminants Removed

The mass of contaminants removed was calculated based upon the monthly contaminant concentrations reported from the system combined influent as determined by laboratory analysis and from the amount of groundwater processed during the reporting period. The amount of contaminant mass removed on a monthly basis is summarized in Table 3-6. During this reporting period (July 1 to December 31, 2004), the groundwater PAT system removed approximately 33.59 pounds of TPH and 11.65 pounds of VOCs (including benzene, toluene, ethylbenzene, and total xylenes [BTEX] compounds, trimethylbenzenes [TMB], and MTBE).

Table 3-2. Analytical Results for Groundwater Extraction Wells

Sampling Date/ Well ID	Contaminant of Concern ($\mu\text{g/L}$)								
	TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
May 27, 2003									
EX-01	23,000	34,000	2,300	2,600	280	2,210	540	160	550
MW-10	38,000	15,000	5,500	4,800	1,200	6,900	2,100	640	770
June 23, 2003									
EX-01	4,800	17,000	3,300	4,400	470	3,600	800	230	1,000
MW-10	18,000	17,000	2,400	2,900	520	4,700	1,200	340	500
MW-10 ^(a)	18,000	17,000	2,500	2,900	530	4,700	1,200	340	510
July 28, 2003									
EX-01	4,800	12,000	610	250	50	310	210	55	32
MW-10	13,000	18,000	2,400	2,700	470	4,500	1,200	300	550
August 26, 2003									
EX-01	22,000	11,000	3,300	4,500	410	3,400	700	180	1,300
EX-01 ^(a)	5,700	9,200	4,000	6,300	550	4,700	880	220	2,100
MW-10	20,000	37,000	3,200	7,400	550	9,500	2,000	500	610
September 26, 2003									
EX-01	18,000	7,100	2,500	3,300	350	2,770	590	150	920
MW-10	21,000	11,000	2,400	2,200	380	4,200	1,100	290	480
October 21, 2003									
EX-01	13,000	10,000	2,000	2,100	180	1,860	440	120	620
MW-10	19,000	12,000	2,800	2,900	500	4,600	1,100	280	570
November 25, 2003									
EX-01	2,200	8,600	2,100	2,300	270	2,550	490	170	980
MW-10	17,000	12,000	2,500	2,400	380	4,100	1,100	330	590
MW-10 ^(a)	17,000	11,000	2,400	2,300	370	3,900	1,100	320	580
December 22, 2003									
EX-01	2,500	9,900	640	280	47	360	180	53	68
MW-10	19,000	12,000	2,900	2,400	340	4,100	1,100	280	710
January 22, 2004									
EX-01	10,000	11,000	2,700	1,800	310	2,340	830	240	190
EX-01 ^(a)	17,000	12,000	580	620	76	650	130	43	210
MW-10	12,000	12,000	1,900	1,300	390	4,000	1,200	350	400
February 27, 2004									
EX-01	16,000	9,700	2,200	3,400	380	2,870	480	190	1,000
MW-10	23,000	29,000	1,900	2,500	270	7,400	1,800	480	550
April 13, 2004									
EX-01	14,000	9,100	2,600	2,000	200	2,890	440	140	1,300
MW-10	17,000	12,000	1,600	1,500	370	3,100	760	210	330
MW-10 ^(a)	17,000	12,000	1,500	1,500	380	2,870	720	210	380
July 27, 2004									
EX-01	14,000	8,200	2,200	1,600	230	1,800	120	480	950
MW-10	18,000	11,000	1,900	2,200	360	2,900	150	640	460
October 26, 2004									
EX-01	14,000	7,900	2,600	1,400	220	2,650	150	530	1,100
MW-10	16,000	8,200	2,300	2,200	420	3,300	170	700	620

Note: (a) Duplicate sample.

$\mu\text{g/L}$ = micrograms per liter
 MTBE = methyl tertiary butyl ether
 TMB = trimethylbenzene
 TPH-g = total petroleum hydrocarbons as gasoline
 TPH-d = total petroleum hydrocarbons as diesel

Table 3-3. Analytical Results for Groundwater PAT System Influent

Sampling Date	Contaminant of Concern ($\mu\text{g/L}$)								
	TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
Startup ^(a)	110,600	44,000	16,300	18,240	1,338	10,840	1,280	330	9,540
03/15/02	48,000	49,000	19,000	20,000	2,100	14,600	1,600	430	9,600
03/22/02	48,000	29,000	9,500	9,700	770	5,600	700	230	3,400
03/29/02	39,000	27,000	11,000	13,000	1,300	8,300	1,300	310	3,900
04/11/02	81,000	48,000	15,000	18,000	1,700	12,700	1,300	340	8,000
04/25/02	51,000	28,000	9,700	11,000	970	7,200	1,100	260	3,900
05/30/02	49,000	30,000	7,900	9,000	830	5,800	870	210	3,000
06/27/02	37,000	23,000	8,900	10,000	990	6,000	1,100	280	3,500
07/25/02	47,000	43,000	9,500	12,000	1,100	8,400	1,200	310	3,700
10/08/02	46,000	44,000	10,000	13,000	1,300	10,400	1,600	420	5,800
11/27/02	43,000	44,000	11,000	14,000	1,700	10,700	1,800	480	4,700
12/27/02	34,000	15,000	5,400	8,600	670	6,100	990	260	3,000
01/28/03	44,000	24,000	8,400	12,000	1,100	7,400	1,500	400	4,200
01/28/03 ^(b)	41,000	32,000	8,700	12,000	1,200	7,800	1,600	410	4,600
03/13/03 ^(c)	17,000	32,000	3,200	1,100	300	1,890	760	200	800
03/31/03	40,000	4,900	8,700	13,000	890	7,900	1,300	350	4,300
04/24/03	32,000	20,000	7,200	11,000	1,000	7,200	1,300	370	3,500
05/27/03 ^(d)	32,206	22,339	4,264	3,950	845	5,088	1,497	455	685
06/23/03 ^(d)	12,469	17,000 M	2,806	3,529	502	4,239	1,032	294	712
07/28/03 ^(d)	8,993	15,068	1,525	1,503	265	2,453	716	180	297
08/26/03 ^(d)	16,859	23,262	3,430	6,379	514	6,717	1,382	347	1,167
09/26/03 ^(d)	19,409	8,932	2,453	2,783	364	3,442	830	216	713
10/21/03 ^(d)	15,689	10,896	2,358	2,458	323	3,088	736	192	598
11/25/03 ^(d)	8,729	9,879	2,254	2,322	316	3,190	759	238	806
12/22/03 ^(d)	9,613	10,805	1,614	1,194	173	1,972	577	151	345
01/22/04 ^(d)	12,751	11,750	1,770	1,225	291	2,747	300	246	840
2/27/04 ^(d)	19,203	18,531	2,603	2,988	330	4,943	794	323	1,804
4/13/04 ^{(d)(e)}	16,336	11,358	1,783	1,611	336	2,964	564	194	674
7/27/04 ^{(d)(e)}	15,542	9,279	2,084	1,831	280	2,224	542	132	761
10/26/04 ^{(d)(e)}	14,999	8,050	2,450	1,800	320	2,975	615	75	860

Note: (a) Samples were collected daily during the first week of startup.

(b) Duplicate sample.

(c) The system was operating intermittently due to a malfunctioning level switch controller from early February to mid-March. The pump in EX-01 was manually operated to obtain the samples. Therefore, analytical results may not be representative.

(d) Results were calculated using the weighted average of analytical results from EX-01 and MW-10. MW-10 started operation May 21, 2003.

(e) Sampling frequency for the groundwater PAT system influent has been reduced from monthly as of April 2004 to quarterly per the agreement between the Air Force and the RWQCB.

$\mu\text{g/L}$ = micrograms per liter

M = Matrix effect. The recovery for the MS/MSD sample was high.

MTBE = methyl tertiary butyl ether

TMB = trimethylbenzene

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

Table 3-4. Analytical Results for Groundwater PAT System Effluent

Sampling Date	Contaminant of Concern								
	TPH-g (mg/L)	TPH-d (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	MTBE (µg/L)
Startup ^(a)	ND	ND	ND	ND	ND	ND	ND	ND	ND
03/15/02	ND	ND	ND	ND	ND	ND	ND	ND	1.3
03/22/02	0.18	ND	ND	ND	ND	ND	ND	ND	ND
03/29/02	ND	ND	0.096	ND	ND	ND	ND	ND	ND
04/11/02	ND	ND	0.78	1.6	ND	1.1	ND	ND	1.8
04/25/02	ND	ND	ND	ND	ND	ND	ND	ND	ND
05/30/02	0.18	ND	0.12	2.7	ND	1.4	ND	ND	ND
06/27/02	ND	ND	0.5	ND	ND	ND	ND	ND	ND
07/25/02	ND	ND	ND	ND	ND	ND	ND	ND	ND
10/08/02	ND	ND	2.4	ND	ND	ND	ND	ND	1.8
11/27/02	0.18	1.1	3.1	4.0	ND	3.6	ND	1	22
12/27/02	ND	0.16	ND	ND	ND	ND	ND	ND	ND
01/28/03	ND	0.47 J	ND	ND	ND	ND	ND	ND	ND
03/13/03	ND	1.8	ND	ND	ND	ND	0.24 J	ND	11
03/31/03	ND	1.2	ND	0.47 J	ND	ND	ND	ND	2.6
04/24/03	ND	0.90 J	ND	ND	ND	ND	ND	ND	ND
05/27/03	ND	1.6	ND	ND	ND	ND	ND	ND	1.0
06/23/03	ND	ND	ND	ND	ND	ND	ND	ND	ND
07/28/03	ND	0.67 J	ND	ND	ND	ND	ND	ND	ND
08/26/03	ND	0.29 J	ND	ND	ND	ND	ND	ND	ND
09/26/03	ND	ND	ND	ND	ND	ND	ND	ND	ND
10/21/03	ND	0.48 J	ND	ND	ND	ND	ND	ND	0.85 J
11/25/03	ND	0.34 J	0.46 J	0.48 J	ND	0.26 J	0.21 J	ND	3.0
12/22/03	0.047 J	0.52 J	ND	ND	ND	ND	ND	ND	9.4
1/22/04	0.040 J	0.28 J	ND	ND	ND	ND	ND	ND	7.0
2/27/04	ND	0.70 J	ND	ND	ND	ND	ND	ND	10
4/13/04	0.046J	0.60 J	ND	ND	ND	ND	ND	ND	2.4
5/18/04	NA	NA	ND	ND	ND	ND	ND	ND	2.1
6/17/04	NA	NA	ND	ND	ND	ND	ND	ND	1.2
7/27/04	ND	ND	ND	ND	ND	ND	ND	ND	0.56J
8/23/04	NA	NA	ND	ND	ND	ND	ND	ND	1.7
9/22/04	NA	NA	ND	ND	ND	ND	ND	ND	ND
10/26/04	ND	ND	ND	ND	ND	4.7	0.53J	ND	52
11/30/04	NA	NA	ND	ND	ND	ND	ND	ND	9.3
12/27/04	NA	NA	ND	ND	ND	ND	ND	ND	11

Note: (a) Samples were collected daily during the first week of startup. Average results were presented in the table.
 J = Estimated result. Result is less than reporting limit.

µg/L = micrograms per liter
 mg/L = milligrams per liter
 MTBE = methyl tertiary butyl ether
 ND = not detected
 NA = not analyzed
 TMB = trimethylbenzene
 TPH-g = total petroleum hydrocarbons as gasoline
 TPH-d = total petroleum hydrocarbons as diesel

Table 3-5. Analytical Results at the Outlet of the First GAC Vessel

Sampling Date	Contaminant of Concern						
	TPH-g (ppmv)	Benzene (ppbv)	Toluene (ppbv)	Ethylbenzene (ppbv)	Xylenes (ppbv)	1,2,4-TMB (ppbv)	1,3,5-TMB (ppbv)
01/28/03	1.2 J	ND	2.0	ND	1.3 J	0.52 J	ND
03/07/03	0.84 J	ND	ND	ND	ND	ND	ND
03/31/03	1.7 J,B	ND	0.61 J	ND	ND	ND	ND
04/24/03	1.4 J,B	ND	ND	ND	ND	ND	ND
05/27/03	3.8 B	ND	ND	ND	ND	ND	ND
06/23/03	1.8 J	1.2 J	2.7	ND	ND	ND	ND
06/23/03 ^(a)	1.8 J	1.2 J	3.2	ND	ND	ND	ND
07/28/03	3.8	ND	1.9 J	ND	ND	ND	ND
08/26/03	4.2	1.3 J	2.0	0.58 J	1.2 J	ND	ND
09/26/03	4.5 B	ND	ND	ND	ND	ND	ND
10/21/03	6.0	ND	1.6 J	ND	ND	ND	ND
11/25/03	2.4	1.5 J	ND	ND	ND	ND	ND
12/22/03	2.0 J	ND	ND	ND	ND	ND	ND
01/22/04	2.8	ND	1.1 J	ND	ND	ND	ND
02/27/04	0.66 J	ND	1.2 J	ND	ND	ND	ND
04/13/04	8.3	ND	ND	ND	ND	ND	ND
05/18/04	2.5	ND	0.64	0.011 J	ND	ND	ND
05/18/04 ^(a)	2.7	ND	0.65	0.012 J	ND	ND	ND
06/17/04	5.9	ND	0.15	0.027 J	0.027 J	ND	ND
7/27/04	14	ND	0.25	0.056 J	0.051 J	ND	ND
8/23/04	6.3	ND	0.14	0.031 J	0.034 J	ND	ND
9/22/04	7.4	ND	0.14	0.031 J	0.42	ND	ND
10/26/04	0.79 J	ND	ND	ND	ND	ND	ND
11/30/04	1.1 J	ND	0.030 J	0.0085 J	ND	ND	ND
11/30/04 ^(a)	1.3 J	ND	0.028 J	0.0091 J	ND	ND	ND
12/27/04	3.9	ND	0.081	0.026 J	0.048	ND	ND

Note: (a) Duplicate sample.
 B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
 J = Estimated result. Result is less than reporting limit.
 ND = not detected
 ppmv = parts per million by volume
 ppbv = parts per billion by volume
 TMB = trimethylbenzene
 TPH = total petroleum hydrocarbons (as gasoline)

Table 3-6. Contaminants Removed since System Startup

Month	Contaminant Removed (lbs)								
	TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE
03/08/02	2.26	0.80	0.37	0.43	0.03	0.25	0.03	0.01	0.11
03/15/02	1.47	1.50	0.58	0.61	0.06	0.45	0.05	0.01	0.29
03/22/02	1.28	0.77	0.25	0.26	0.02	0.15	0.02	0.01	0.09
03/29/02	0.92	0.64	0.26	0.31	0.03	0.20	0.03	0.01	0.09
04/11/02	3.7	2.2	0.70	0.80	0.08	0.60	0.06	0.02	0.40
04/25/02	2.3	1.3	0.40	0.50	0.04	0.30	0.06	0.01	0.20
05/30/02	2.3	1.3	0.60	0.70	0.06	0.4	0.06	0.02	0.20
06/27/02	3.9	2.4	0.94	1.06	0.10	0.63	0.12	0.03	0.37
07/25/02	7.0	6.3	1.40	1.77	0.16	1.24	0.18	0.05	0.55
10/08/02	9.06	8.48	1.90	2.42	0.23	1.72	0.27	0.07	0.92
11/27/02	0.18	0.18	0.04	0.06	0.01	0.04	0.01	0.00	0.18
12/27/02	2.69	1.19	0.43	0.68	0.05	0.48	0.08	0.02	1.98
Jan 03	4.22	2.78	0.85	1.19	0.11	0.75	0.15	0.04	0.44
Feb 03	0.50	0.95	0.09	0.03	0.01	0.06	0.02	0.01	0.02
Mar 03	4.63	0.57	1.01	1.50	0.10	0.91	0.15	0.04	0.50
Apr 03	5.69	3.56	1.28	1.96	0.18	1.28	0.23	0.07	0.62
May 03	12.24	8.49	1.62	1.50	0.32	1.93	0.57	0.17	0.26
Jun 03	4.70	6.41	1.06	1.33	0.19	1.60	0.39	0.11	0.27
Jul 03	2.78	4.67	0.47	0.47	0.08	0.76	0.22	0.06	0.09
Aug 03	5.06	6.98	1.03	1.91	0.15	2.02	0.41	0.10	0.35
Sep 03	5.83	2.68	0.74	0.84	0.11	1.03	0.25	0.06	0.21
Oct 03	3.63	2.52	0.55	0.57	0.07	0.71	0.17	0.04	0.14
Nov 03	2.77	3.13	0.71	0.74	0.10	1.01	0.24	0.08	0.26
Dec 03	2.24	2.52	0.38	0.28	0.04	0.46	0.13	0.04	0.08
Jan 04	1.49	1.37	0.21	0.15	0.03	0.32	0.03	0.03	0.10
Feb 04	6.82	6.58	0.73	1.06	0.12	1.75	0.28	0.11	0.38
Mar/Apr 04	3.32	2.31	0.36	0.33	0.07	0.60	0.11	0.04	0.14
May 04 ^(a)	7.09	4.76	1.06	0.87	0.12	1.38	0.47	0.08	0.26
Jun 04 ^(a)	5.65	3.78	0.86	0.70	0.10	1.10	0.38	0.06	0.20
Jul 04	5.92	3.54	0.79	0.70	0.11	0.85	0.29	0.21	0.05
Aug 04 ^(a)	3.87	2.31	0.52	0.46	0.07	0.55	0.19	0.13	0.03
Sep 04 ^(a)	2.88	1.73	0.36	0.34	0.05	0.43	0.12	0.10	0.02
Oct 04	2.95	1.59	0.48	0.35	0.06	0.59	0.17	0.12	0.01
Nov 04 ^(a)	3.18	1.70	0.52	0.39	0.07	0.63	0.18	0.13	0.01
Dec 04 ^(a)	2.54	1.36	0.41	0.31	0.06	0.51	0.14	0.11	0.01
Total	137.08	103.33	23.96	57.57	3.20	27.70	4.96	2.20	10.99

lbs = pounds
 MTBE = methyl tertiary butyl ether
 TMB = trimethylbenzene
 TPH-g = total petroleum hydrocarbons as gasoline
 TPH-d = total petroleum hydrocarbons as diesel

(a) Estimated values since samples were not collected due to change in sampling frequency from monthly to quarterly as of April 2004

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

The groundwater PAT system effectively removed and treated contaminated groundwater from the subsurface at Building 550 at March AFB during the period from July 1, 2004 through December 31, 2004.

The PAT system is currently operating as designed to extract and treat contaminated groundwater from the plume beneath the site. Monitoring well MW-10 was converted to an extraction well on May 21, 2003. The average flow rate for the groundwater PAT system during the reporting period was 0.59 gpm.

Approximately 166,060 gallons of contaminated groundwater were treated during the reporting period. Removed constituents included approximately 33.59 pounds of TPH, 9.61 pounds of BTEX compounds, 0.95 pounds of TMB, and 1.09 pounds of MTBE.

4.2 RECOMMENDATION

As agreed between the RWQCB and the Air Force during the technical meeting for alternative corrective measures at Bldg 550 on 22 April 2004, the existing remedial strategy is not working and a different approach is needed. Further site characterization by collecting soil or soil gas samples using direct-push techniques would help delineate the extent of contamination in the suspected source area followed by design/installation of one or two dual-phase groundwater/soil vapor extraction well(s). This has been successful at other similar sites in promoting soil vapor extraction and *in-situ* biodegradation. The cost-savings from the reduction in reporting and sampling efforts would allow the Air Force to focus funds on improving system performance and accelerating site cleanup.

A work plan for further site characterization is being prepared.

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Appendix A

Analytical Results

FINAL DATA - VAPOR
(Page 1 of 1)

Base Site	MARCH NA	MARCH NA	MARCH NA	MARCH NA	MARCH NA	MARCH NA
Point Sampling Date	550-CVP02 1/22/2004 1:45	550-CVP02 2/27/2004 14:05	550-CVP02 4/13/2004 13:20	550-CVP02 5/18/2004 12:40	550-CVP02 5/18/2004 12:40	550-CVP02 6/17/2004 12:20
Sample Depth	-	-	-	-	-	-
Sample Type	N1	N1	N1	N1	N1	N1
Field Sample	550-CVP2-VS14	550-CVP2-VS15	550-CVP2-VS16	550-CVP2-VS17	550-CVP2-VS18	550-CVP2-VS19
Lab Sample	E4A260201-001	E4C2010211-001	E4D160191-001	E4E210411-001	E4F210411-002	E4F2104197-001
PVC Run	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1
Status	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result OA [RL, DF]			
benzene	TO3	ppm v/v	-	-	-	-
ethylbenzene	TO3	ppm v/v	-	-	-	-
methyl tert-butyl ether (MTBE)	TO3	ppm v/v	2.8	[2.0, 2.01]	0.66 J	[2.2, 2.18]
PHC as gasoline	TO3	ppm v/v	-	-	-	-
toluene	TO3	ppm v/v	-	-	-	-
xylenes, total	TO3	ppm v/v	-	-	-	-

FINAL DATA - VAPOR
(Page 1 of 2)

Base	Site	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
		NA	NA	NA	NA	NA	NA
		550-CVP02	550-CVP02	550-CVP02	550-CVP02	550-CVP02	550-CVP02
	Point	550-CVP02	550-CVP02	550-CVP02	550-CVP02	550-CVP02	550-CVP02
	Sampling Date	1/22/2004 11:45	1/22/2004 11:45	1/22/2004 14:05	1/22/2004 14:05	1/22/2004 13:20	1/22/2004 13:20
	Sample Depth	-	-	-	-	-	-
	Sample Type	N1	N1	N1	N1	N1	N1
Field Sample	550-CVP2-VS14	550-CVP2-VS14	550-CVP2-VS15	550-CVP2-VS16	550-CVP2-VS16	550-CVP2-VS16	550-CVP2-VS16
Lab Sample	E4A260201-001	E4A260201-001	E4C010211-001	E4D160191-001	E4D160191-001	E4D160191-001	E4D160191-001
PVC / Run	PR / 1	PR / 2	PR / 1	PR / 1	PR / 1	PR / 2	PR / 2
Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
	Unit	ppb v/v					
acetone	Result	-	[20.0, 1]	-	[20.0, 1]	-	[20.0, 1]
benzene	QA	ND	ND	ND	ND	ND	ND
benzyl chloride	IRL, DFI	ND	[10.1]	-	[10.1]	-	[10.1]
bromodichloromethane	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
bromoform	QA	ND	[20.0, 1]	-	ND	ND	ND
bromomethane	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
2-butanone (MEK)	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
carbon disulfide	QA	ND	[10.1]	-	[10.1]	-	[10.1]
carbon tetrachloride	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
chlorobenzene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
chloroethane	QA	ND	[20.0, 1]	-	ND	ND	ND
chloroform	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
chloromethane	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
dibromochloromethane	QA	ND	[20.0, 1]	-	ND	ND	ND
1,1-dichlorobenzene	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
1,2-dichlorobenzene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
1,3-dichlorobenzene	QA	ND	[20.0, 1]	-	ND	ND	ND
1,4-dichlorobenzene	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
dichlorodifluoromethane	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
1,1-dichloroethane	QA	ND	[20.0, 1]	-	ND	ND	ND
1,2-dichloroethane	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
cis-1,1-dichloroethylene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
trans-1,2-dichloroethylene	QA	ND	[20.0, 1]	-	ND	ND	ND
1,2-dichloropropane	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
cis-1,3-dichloropropene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
trans-1,3-dichloropropene	QA	ND	[20.0, 1]	-	ND	ND	ND
1,2-dichlorotetrafluoroethane	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
ethylbenzene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
ethylene dibromide (EDB)	QA	ND	[20.0, 1]	-	ND	ND	ND
4-ethyltoluene	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
hexachlorobutadiene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
2-hexanone	QA	ND	[10.1]	-	[10.1]	-	[10.1]
methyl tert-butyl ether (MTBE)	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
4-methyl-2-pentanone (MIBK)	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
methylene chloride	QA	ND	[10.1]	-	[10.1]	-	[10.1]
styrene	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
1,1,2,2-tetrachloroethane	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
tetrachloroethene (PCE)	QA	ND	[20.0, 1]	-	ND	ND	ND
toluene	IRL, DFI	ND	[10.1]	-	ND	ND	ND
1,2,4-trichlorobenzene	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A
1,1,1-trichloroethane	QA	ND	[20.0, 1]	-	ND	ND	ND
1,1,2-trichloroethane	IRL, DFI	ND	[20.0, 1]	-	ND	ND	ND
trichloroethylene (TCE)	Result	TO14A	TO14A	TO14A	TO14A	TO14A	TO14A

FINAL DATA - VAPOR
(Page 2 of 2)

Analyte	Method	Unit	Result	QA	IRL, DF	Result	QA	IRL, DF	Result	QA	IRL, DF	Result	QA	IRL, DF	
						MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
trichlorofluoromethane	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
1,1,2-trichloroifluoroethane	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
1,2,4-trimethylbenzene	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
1,3,5-trimethylbenzene	TO14A	ppb v/v	ND	[10, 1]	-	ND	[10, 1]	-	ND	[10, 1]	-	ND	[63, 6.29]	10 J	[63, 6.29]
vinyl acetate	TO14A	ppb v/v	1.2 J	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
vinyl chloride	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
m- & p-xylene	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]
o-xylene	TO14A	ppb v/v	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[2.0, 1]	-	ND	[13, 6.29]	ND	[13, 6.29]

ANALYTICAL RESULTS
(Page 1 of 1)

Base		MARCH		MARCH		MARCH		MARCH	
Site Point	NA 550-WSP01	NA		NA 550-WSP01		NA 550-WSP03		NA 550-WSP03	
Sampling Date	(07/27/2004 11:50	10/26/2004 15:05		07/27/2004 12:10		10/26/2004 15:20		-	
Sample Depth	-	-		-		-		-	
Sample Type	N1			N1		N1		N1	
Field Sample Lab Sample	550-WSP1-WG20 E4G290157-002	550-WSP1-WG21 E4G290157-002		550-WSP3-WG15 E4G290157-005		550-WSP3-WG16 E4G270340-004			
PVC / Run Status	PR / 1 Validated	PR / 1 Validated		PR / 1 Validated		PR / 1 Validated		PR / 1 Validated	
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
ethanol	SW8015B-DAI	mg/L	-	3.9 J	QA [5.0, 1]	-	3.5 J	QA [5.0, 1]	
methanol	SW8015B-DAI	mg/L	-	ND	[5.0, 1]	-	ND	[5.0, 1]	
diesel fuel #2	SW8015B-E	mg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	
jet fuel #4	SW8015B-E	mg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	
unknown extract. hydrocarbon	SW8015B-E	mg/L	8.2	[1.0, 1]	7.9	[1.0, 1]	11	[1.0, 1]	8.2
gasoline	SW8015B-V	mg/L	14	[1.0, 10]	14	[2.5, 25]	18	[2.5, 25]	16
unknown volatile hydrocarbon	SW8015B-V	mg/L	ND	[1.0, 10]	ND	[2.5, 25]	ND	[2.5, 25]	ND

ANALYTICAL RESULTS
(Page 1 of 4)

Base	Site	MARCH			MARCH			MARCH			MARCH			MARCH		
		NA	NA	NA												
Point	550-WSP01	550-WSP01	550-WSP02	550-WSP02												
Sampling Date	07/27/2004 11:50	-	10/26/2004 15:05	-	07/27/2004 12:35	-	07/27/2004 13:15	-	08/23/2004 13:15	-	09/22/2004 12:50	-	10/26/2004 15:40	-	11/30/2004 14:15	-
Sample Depth	N1	-														
Sample Type	Field Sample	550-WSP1-WG20	550-WSP1-WG21	550-WSP2-WG20	550-WSP2-WG21	550-WSP2-WG20										
Lab Sample	E4G290157-002	E4G270340-002	E4G290157-003	E4G290157-004	E4G290157-002	E4G290157-003	E4H240190-002	E4H240190-002	E4I20395-002	E4I20395-002	E4I20395-002	E4I20395-002	E4I20395-002	E4I20395-002	E4I20395-002	E4I20395-002
PVC / Run	PR / 1	PR / 1														
Status	Validated	Validated														
Analyte	Method	Unit	Result	QA	[RL, DF]	Result	QA	[RL, DF]	Result	QA	[RL, DF]	Result	QA	[RL, DF]	Result	QA
benzene	SW8260B	µg/L	2200	[50, 50]	ND	[33, 33]	ND	[10, 1]								
bromobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
bromochloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
bromodichloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
bromoform	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
bromomethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[20, 1]								
tert-butanol	SW8260B	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-butylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
sec-butylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
tert-butylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
carbon tetrachloride	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
chlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
chloroethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[20, 1]								
chloroform	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
chloromethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[20, 1]								
2-chlorotoluene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
4-chlorotoluene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,2-dibromo-3-chloropropane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[20, 1]								
dibromochloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
dibromomethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,2-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,3-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,4-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
dichlorodifluoromethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[20, 1]								
1,1-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,2-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,1-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
cis-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
trans-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,2-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,3-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
2,2-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
1,1-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
cis-1,3-dichloropropene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
trans-1,3-dichloropropene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
ethyl tert-butyl ether	SW8260B	µg/L	230	[50, 50]	220	[33, 33]	ND	[10, 1]								
ethylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
ethylene dibromide (EDB)	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
hexachlorobutadiene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
isopropyl ether	SW8260B	µg/L	24 J	[67, 33]	33	[33, 33]	ND	[10, 1]								
isopropylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
p-isopropyltoluene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[10, 1]								
methyl tert-amy ether	SW8260B	µg/L	-	[67, 33]	33	[33, 33]	ND	[10, 1]	ND	-						

ANALYTICAL RESULTS
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Base	Site	MARCH		MARCH		MARCH		MARCH		MARCH	
		Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]
	Point	NA		NA		NA		NA		NA	
	Sampling Date	550-WSP01 07/27/2004 11:50		550-WSP01 10/26/2004 15:05		550-WSP02 07/27/2004 12:35		550-WSP02 08/23/2004 13:15		550-WSP02 09/22/2004 12:50	
	Sample Depth	-		-		-		-		-	
	Sample Type	N1		N1		FD1		N1		N1	
	Field Sample	550-WSP1-WG20 E4G290157-002		550-WSP1-WG21 EAJ270340-002		550-WSP2-WG21 E4G290157-004		550-WSP2-WG22 E4H240190-002		550-WSP2-WG24 E4J270340-003	
	Lab Sample	PR / 1		PR / 1		PR / 1		PR / 1		PR / 1	
	PVC / Run	Validated		Validated		Validated		Validated		Validated	
	Status	Validated		Validated		Validated		Validated		Validated	
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	950	[50, 50]	1100	[50, 50]	0.56 J	[1.0, 1]	0.59 J	[1.0, 1]	1.7
methylene chloride	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
naphthalene	SW8260B	µg/L	120	[50, 50]	150	[50, 50]	16 J	[33, 33]	ND	[1.0, 1]	ND
n-propylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
styrene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,1,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
tetrachloroethylene (PCE)	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
toluene	SW8260B	µg/L	1600	[50, 50]	1400	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,1-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND
trichloroethene (TCE)	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND
trichlorofluoromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,3-trichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trimethylbenzene	SW8260B	µg/L	120	[50, 50]	150	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,3,5-trimethylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
vinyl chloride	SW8260B	µg/L	1100	[50, 50]	1700	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
m- & p-xylene	SW8260B	µg/L	ND	[50, 50]	950	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	4.7
o-xylene	SW8260B	µg/L	ND	[70, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND

ANALYTICAL RESULTS
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ANALYTICAL RESULTS
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Base Site	MARCH			MARCH			MARCH			MARCH		
	NA											
Point	550-WSP03	550-WSP03	550-WSP03	FIELDQC								
Sampling Date	07/27/2004	12:10	10/26/2004	15:20	-	-	-	-	-	-	-	-
Sample Depth	-	-	-	-	-	-	-	-	-	-	-	-
Sample Type	N1	N1	N1	TB1								
Field Sample	550-WSP3-WG15	550-WSP3-WG16	550-WSP3-WG16	550-TB-WG19	550-TB-WG20	550-TB-WG21	550-TB-WG22	550-TB-WG23	550-TB-WG22	550-TB-WG23	550-TB-WG23	550-TB-WG23
Lab Sample	E4G290157-005	E4J270340-004	E4J270340-004	E4H240190-001	E4H240190-001	E4J270340-001						
PVC / Run	PR / 1											
Status	Validated											
Analyte	Method	Unit	Result	QA [RL, DF]								
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	460	[50, 50]	620	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
methylene chloride	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
naphthalene	SW8260B	µg/L	110	[50, 50]	160	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
n-propylbenzene	SW8260B	µg/L	41 J	[50, 50]	39	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
styrene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,1,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
tetrachloroethene (PCE)	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
toluene	SW8260B	µg/L	2200	[50, 50]	2200	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,1-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,2-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
trichloroethene (TCE)	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND	[2.0, 1]
trichlorofluoromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,3-trichloropropane	SW8260B	µg/L	640	[50, 50]	700	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,4-trimethylbenzene	SW8260B	µg/L	150	[50, 50]	170	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,3,5-trimethylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
vinyl chloride	SW8260B	µg/L	1800	[50, 50]	2000	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
m- & p-xylene	SW8260B	µg/L	1100	[50, 50]	1300	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
o-xylene	SW8260B	µg/L	ND	[33, 33]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]

LABORATORY ANALYTICAL RESULTS
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Base	MARCH			MARCH			MARCH			MARCH		
	Site	NA	NA	Sampling Date	08/23/2004 13:10	09/22/2004 12:45	Sample Depth	-	N1	NA	NA	MARCH
Point	550-CVP02	550-CVP02	Field Sample	550-CVP2-VS21	550-CVP2-VS22	Lab Sample	E4H240194-001	E4I270258-001	PVC / Run	PR / 1	PR / 1	FD1
Sampling Date	07/27/2004 12:30	-	Sample Depth	N1	N1	Sample Type	550-CVP2-VS21	550-CVP2-VS23	Sample Type	550-CVP2-VS24	550-CVP2-VS25	FD1
Sample Depth	-	-	Field Sample	N1	N1	Lab Sample	E4H240194-001	E4I270258-001	PVC / Run	PR / 1	PR / 1	FD1
Sample Type	N1	N1	Lab Sample	550-CVP2-VS21	550-CVP2-VS23	PVC / Run	PR / 1	PR / 1	Sample Type	550-CVP2-VS24	550-CVP2-VS25	FD1
Field Sample	550-CVP2-VS20	550-CVP2-VS21	Lab Sample	E4G290281-001	E4I270258-001	PVC / Run	PR / 1	PR / 1	Field Sample	E4J280162-001	E4L010317-001	FD1
Lab Sample	E4G290281-001	E4I270258-001	PVC / Run	PR / 1	PR / 1	Status	Validated	Validated	Lab Sample	PR / 1	PR / 1	FD1
PVC / Run	PR / 1	PR / 1	Status	Validated	Validated	Validated	Validated	Validated	PVC / Run	PR / 1	PR / 1	FD1
Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
benzene	TO3	ppm v/v	ND	[0.058, 2.88]	ND	[0.050, 2.5]	ND	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.038, 1.9]
ethylbenzene	TO3	ppm v/v	0.056 J	[0.058, 2.88]	0.031 J	[0.050, 2.5]	0.031 J	[0.039, 1.93]	ND	[0.043, 2.15]	0.0085 J	[0.038, 1.9]
methyl tert-butyl ether (MTBE)	TO3	ppm v/v	ND	[0.058, 2.88]	ND	[0.050, 2.5]	ND	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.037, 1.83]
PHC as gasoline	TO3	ppm v/v	14	[2.9, 2.88]	6.3	[2.5, 2.5]	7.4	[1.9, 1.93]	0.79 J	[2.2, 2.15]	1.1 J	[1.9, 1.9]
toluene	TO3	ppm v/v	0.25	[0.058, 2.88]	0.14	[0.050, 2.5]	0.14	[0.039, 1.93]	ND	[0.043, 2.15]	0.030 J	[0.038, 1.9]
xylenes, total	TO3	ppm v/v	0.051 J	[0.058, 2.88]	0.034 J	[0.050, 2.5]	0.42	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.038, 1.9]

LABORATORY ANALYTICAL RESULTS

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	Base	Site	MARCH	
Point		NA		
Sampling Date		550-CVP02		
Sample Depth		12/27/2004 14:40		
Sample Type		-		
Field Sample		N1		
Lab Sample		550-CVP2-VS26		
PVC / Run		E4L280278-001		
Status		PR / 1		
		Validated		
Analyte	Method	Unit	Result	QA [FRL, DF]
benzene	TO3	ppm v/v	ND	[0.046, 2.29]
ethylbenzene	TO3	ppm v/v	0.026 J	[0.046, 2.29]
methyl tert-butyl ether (MTBE)	TO3	ppm v/v	ND	[0.046, 2.29]
PHC as gasoline	TO3	ppm v/v	3.9	[2.3, 2.29]
toluene	TO3	ppm v/v	0.081	[0.046, 2.29]
xolenes, total	TO3	ppm v/v	0.048	[0.046, 2.29]

LABORATORY ANALYTICAL RESULTS
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Analyte	Method	Unit	Result	QA	[RL, DF]									
ethanol	SW8015B-DAI	mg/L	-			3.9	J	[5.0, 1]	-			3.5	J	[5.0, 1]
methanol	SW8015B-DAI	mg/L	-			ND		[5.0, 1]	-			ND		[5.0, 1]
diesel fuel #2	SW8015B-E	mg/L	ND		[1.0, 1]									
jet fuel #4	SW8015B-E	mg/L	ND		[1.0, 1]									
unknown extract. hydrocarbon	SW8015B-E	mg/L	8.2		[1.0, 1]	7.9		[1.0, 1]	11		[1.0, 1]	8.2		[1.0, 1]
gasoline	SW8015B-V	mg/L	14		[1.0, 10]	14		[2.5, 25]	18		[2.5, 25]	16		[1.0, 10]
unknown volatile hydrocarbon	SW8015B-V	mg/L	ND		[1.0, 10]	ND		[2.5, 25]	ND		[2.5, 25]	ND		[1.0, 10]

LABORATORY ANALYTICAL RESULTS
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Base	Site Point	MARCH			MARCH			MARCH			MARCH			MARCH		
		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sampling Date	550-WSP01 10/27/2004 11:50	550-WSP02 10/26/2004 15:05	550-WSP02 07/27/2004 12:35	550-WSP02 07/27/2004 12:35	550-WSP02 08/23/2004 13:15	550-WSP02 09/22/2004 12:50	550-WSP02 N1								
	Sample Depth	-	-	-	-	-	-	FD1								
	Sample Type	N1	550-WSP1-WG21	550-WSP2-WG20	550-WSP2-WG21	550-WSP2-WG21	550-WSP2-WG21	E4G290157-003	E4G290157-004	E4G290157-004	E4H240190-002	E4H240190-002	E4H240190-002	E4H240190-002	E4H240190-002	E4H240190-002
	Field Sample Lab Sample	EA-G290157-002	EA-J270340-002	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1
	PVC / Run	PR / 1	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
	Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]
benzene	SW8260B	µg/L	2200	[50, 50]	2600	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
bromobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
bromoform	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
bromomethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
tert-butanol	SW8260B	µg/L	-	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
n-butylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
sec-butylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
tert-butylbenzene	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
carbon tetrachloride	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
chlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
chloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
chloroform	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
chloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
2-chlorotoluene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
4-chlorotoluene	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dibromo-3-chloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
dibromochloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
dibromomethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,3-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,4-dichlorobenzene	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
dichlorodifluoromethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,3-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
2,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
cis-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
trans-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,3-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
2,2-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
cis-1,3-dichloropropene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
trans-1,3-dichloropropene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
ethyl tert-butyl ether	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
ethylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
ethylene dibromide (EDB)	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
hexachlorobutadiene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
isopropyl ether	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
isopropylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
p-isopropyltoluene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
methyl tert-amy ether	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]

LABORATORY ANALYTICAL RESULTS

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Base Site	Sampling Date	MARCH		MARCH		MARCH		MARCH		MARCH		MARCH	
		NA	550-WSP01	NA	550-WSP02	NA	550-WSP02	NA	550-WSP02	NA	550-WSP02	NA	550-WSP02
Point	07/27/2004 11:50	-	-	-	-	07/27/2004 12:35	-	07/27/2004 12:35	-	08/23/2004 13:15	09/22/2004 12:50	10/26/2004 15:40	11/30/2004 14:15
Sample Depth	N1	-	-	N1	-	-	-	-	-	N1	-	-	-
Sample Type	Field Sample	550-WSP1-WG20	550-WSP1-WG21	550-WSP2-WG20	550-WSP2-WG21	550-WSP2-WG20	550-WSP2-WG21	550-WSP2-WG20	550-WSP2-WG21	N1	N1	N1	N1
Lab Sample	E4G290157-002	E4J270340-002	E4G290157-003	E4G290157-004	E4H240190-002	E4H240190-003	E4H240190-004	E4H240190-002	E4H240190-003	E41270340-003	E41270340-002	E4L010197-002	E4L010197-001
PV/C / Run	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1
Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result	QA	[RL, DF]	Result	QA	[RL, DF]	Result	QA	[RL, DF]	Result	QA
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	950	[50, 50]	1100	[50, 50]	ND	[33, 33]	0.56 J	[1.0, 1]	0.59 J	[1.0, 1]	52
methylene chloride	SW8260B	µg/L	120	[50, 50]	150	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
naphthalene	SW8260B	µg/L	16 J	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
n-propylbenzene	SW8260B	µg/L	1400	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
styrene	SW8260B	µg/L	1600	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,1,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
tetrachloroethene (PCE)	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
toluene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,1-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
trichloroethene (TCE)	SW8260B	µg/L	ND	[100, 50]	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND
trichlorofluoromethane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,3-trichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trimethylbenzene	SW8260B	µg/L	480	[50, 50]	530	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,3-dimethylbenzene	SW8260B	µg/L	120	[50, 50]	150	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
vinyl chloride	SW8260B	µg/L	1100	[50, 50]	1100	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
m- & p-xylene	SW8260B	µg/L	700	[50, 50]	950	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
xylene	SW8260B	µg/L	ND	[50, 50]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND

LABORATORY ANALYTICAL RESULTS
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Base	MARCH			MARCH			MARCH			MARCH			MARCH		
	Site	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sampling Date	12/27/2004 14:45	12/27/2004 14:45	07/27/2004 12:10	-	-	-	-	-	-	-	-	-	-	-	-
Sample Depth	N1	-	-	N1	-	-	N1	-	-	TB1	-	-	TB1	-	-
Sample Type	bromobenzene	FD1	-	550-WSP2-WG27	550-WSP3-WG15	550-WSP3-WG16	550-WSP3-WG16	E4J270340-005	E4J270340-004	550-TB-WG19	550-TB-WG21	550-TB-WG22	550-TB-WG21	550-TB-WG22	550-TB-WG22
Field Sample	550-WSP2-WG26	E4L280261-002	E4L280261-003	PR / 1	E4G290157-001	E4H240190-001	E4I230395-001	PR / 1	PR / 1	PR / 1					
Lab Sample	PVC / Run	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Status	PR / 1	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
benzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	2300	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
bromobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
bromochloromethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
bromodichloromethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
bromiform	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
bromomethane	SW8260B	µg/L	ND	[2.0, 1]	ND	[2.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND
tert-butanol	SW8260B	µg/L	-	-	-	-	-	-	-	[830, 33, 33]	-	-	-	-	-
n-butylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	15 J	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
sec-butylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
tert-butylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
carbon tetrachloride	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
chlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
chloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
chloroform	SW8260B	µg/L	ND	[2.0, 1]	ND	[2.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND
chloromethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
2-chlorotoluene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
4-chlorotoluene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2-dibromo-3-chloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
dibromochloromethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
dibromomethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2-dichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,3-dichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,4-dichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[100, 50]	ND	[67, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
dichlorodifluoromethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1-dichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2-dichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2-trichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
trans-1,2-dichloroethene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2-dichloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,3-dichloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
2,2-dichloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
cis-1,2-dichloroepene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
cis-1,3-dichloropropene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
trans-1,3-dichloropropene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND
ethyl tert-butyl ether	SW8260B	µg/L	-	-	-	-	-	-	-	[67, 33]	-	-	-	-	-
ethylbenzene	SW8260B	µg/L	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	420	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
ethylene dibromide (EDB)	SW8260B	µg/L	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
hexachlorobutadiene	SW8260B	µg/L	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
isopropyl ether	SW8260B	µg/L	-	-	-	-	-	-	-	[67, 33]	-	-	-	-	-
isopropylbenzene	SW8260B	µg/L	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	17 J	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
p-isopropyltoluene	SW8260B	µg/L	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
methyl tert-ethyl ether	SW8260B	µg/L	-	-	-	-	-	-	-	[67, 33]	-	-	-	-	-

LABORATORY ANALYTICAL RESULTS
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Base	Site Point	MARCH		MARCH		MARCH		MARCH		MARCH	
		NA	550-WSP02	NA	550-WSP03	NA	550-WSP03	NA	FIELDQC	NA	FIELDQC
Sampling Date	12/27/2004 14:45	550-WSP02	550-WSP03	NA	NA	10/26/2004 15:20	-	08/23/2004	-	09/22/2004	10/26/2004
Sample Depth	-	12/27/2004 14:45	07/27/2004 12:10	-	-	-	-	-	-	-	-
Sample Type	N	FD1	N1	N1	N1	550-WSP3-WG15	550-TB-WG19	TB1	TB1	TB1	TB1
Field Sample	550-WSP2-WG26	550-WSP2-WG27	550-WSP3-WG16	550-TB-WG21	550-TB-WG21	E4G290157-005	E4H240190-001	E4G290157-001	E4H240190-001	E4G290395-001	E4H240340-001
Lab Sample	E4L280261-002	E4L280261-003	E4G290157-004	E4H240190-004	E4H240190-004	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1
PVC / Run	PR / 1	PR / 1	PR / 1	PR / 1	PR / 1	Validated	Validated	Validated	Validated	Validated	Validated
Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	11	[1.0, 1]	9.2	[1.0, 1]	460	[50, 50]	620	[33, 33]	ND
methylene chloride	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
naphthalene	SW8260B	µg/L	1.8	[1.0, 1]	1.4	[1.0, 1]	110	[50, 50]	160	[33, 33]	ND
n-propylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	39	[33, 33]	ND
styrene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,1,1,2-tetrachloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
tetrachloroethene (PCE)	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
toluene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	2200	[33, 33]	ND
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,1,1-trichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,1,2-trichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
trichloroethene (TCE)	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
trichlorofluoromethane	SW8260B	µg/L	ND	[2.0, 1]	ND	[2.0, 1]	ND	[100, 50]	ND	[67, 33]	ND
1,2,3-trichloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	ND	[33, 33]	ND
1,2,4-trimethylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	700	[33, 33]	ND
vinyl chloride	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	170	[33, 33]	ND
m- & p-xylene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	2000	[33, 33]	ND
o-xylene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[50, 50]	1300	[33, 33]	ND

LABORATORY ANALYTICAL RESULTS

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Base	MARCH			MARCH		
	Site	Point	Sampling Date	NA	NA	FIELDQC
			1/13/2004		12/27/2004	
Sample Depth	-					
Sample Type	TB1			TB1		
Field Sample	550-TB-WG23			550-TB-WG24		
Lab Sample	E4L010197-001			E4L280261-001		
PV/C / Run	PR / 1			PR / 1		
Status	Validated			Validated		
Analyte	Method	Unit	Result	QA [IRL, DF]	Result	QA [IRL, DF]
benzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
bromobenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
bromoform	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
bromomethane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
bromotoluene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
tert-butanol	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]
n-butylbenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
sec-butylbenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
tart-butylbenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
carbon tetrachloride	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
chlorobenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
chloroethane	SW8260B	ug/L	ND	[2.0, 1]	ND	[2.0, 1]
chloroform	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
chloromethane	SW8260B	ug/L	ND	[2.0, 1]	ND	[2.0, 1]
2-chlorotoluene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
4-chlorotoluene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dibromo-3-chloropropane	SW8260B	ug/L	ND	[2.0, 1]	ND	[2.0, 1]
cibromonochloromethane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
cibromonemethane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichlorobenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,3-dichlorobenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,4-dichlorobenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
dichlorodifluoromethane	SW8260B	ug/L	ND	[2.0, 1]	ND	[2.0, 1]
1,1-dichloroethane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichloroethane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,1-dichloroethene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
cis-1,2-dichloroethene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
trans-1,2-dichloroethene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,2-dichloropropane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,3-dichloropropane	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]
2,2-dichloropropane	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
1,1-dichloropropene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
cis-1,3-dichloropropene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
trans-1,3-dichloropropene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
ethyl tert-butyl ether	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]
ethylbenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
ethylene dibromide (EDB)	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]
hexachlorobutadiene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
isopropylbenzene	SW8260B	ug/L	ND	[1.0, 1]	ND	[1.0, 1]
p-isopropyltoluene	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]
methyl tert-amyI ether	SW8260B	ug/L	-	[1.0, 1]	ND	[1.0, 1]

LABORATORY ANALYTICAL RESULTS
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Analyte	Method	Unit	Result	QA [RL, DF]		Result	QA [RL, DF]	
				QA	[RL, DF]		QA	[RL, DF]
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
methylene chloride	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
naphthalene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
n-propylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
styrene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,1,2-tetrachloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
tetrachloroethene (PCE)	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
toluene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,1-trichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,1,2-trichloroethane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
trichloroethene (TCE)	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
trichlorofluoromethane	SW8260B	µg/L	ND	[2.0, 1]	ND	[2.0, 1]	ND	[2.0, 1]
1,2,3-trichloropropane	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,2,4-trimethylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
1,3,5-trimethylbenzene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
viny chloride	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
m- & p-xylene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]
o-xylene	SW8260B	µg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]

ANALYTICAL RESULTS
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Analyte	Method	Unit	Result	QA [RL, DF]		Result	QA [RL, DF]		Result	QA [RL, DF]		Result	QA [RL, DF]	
				QA	[RL, DF]		QA	[RL, DF]		QA	[RL, DF]		QA	[RL, DF]
benzene	TO3	ppm v/v	ND	[0.058, 2.88]	ND	[0.058, 2.5]	ND	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.038, 1.9]	ND	[0.037, 1.83]
ethylbenzene	TO3	ppm v/v	0.056 J	[0.058, 2.88]	0.031 J	[0.050, 2.5]	0.031 J	[0.039, 1.93]	ND	[0.043, 2.15]	0.0085 J	[0.038, 1.9]	J	[0.037, 1.83]
methyl tert-butyl ether (MTBE)	TO3	ppm v/v	ND	[0.058, 2.88]	ND	[0.050, 2.5]	ND	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.038, 1.9]	ND	[0.037, 1.83]
PHC as gasoline	TO3	ppm v/v	14	[2.9, 2.88]	6.3	[2.5, 2.5]	7.4	[1.9, 1.93]	0.79 J	[2.2, 2.15]	1.1 J	[1.9, 1.9]	1.3 J	[1.8, 1.83]
toluene	TO3	ppm v/v	0.25	[0.058, 2.88]	0.14	[0.050, 2.5]	0.14	[0.039, 1.93]	ND	[0.043, 2.15]	0.030 J	[0.038, 1.9]	0.028 J	[0.037, 1.83]
xylenes, total	TO3	ppm v/v	0.051 J	[0.058, 2.88]	0.034 J	[0.050, 2.5]	0.42	[0.039, 1.93]	ND	[0.043, 2.15]	ND	[0.038, 1.9]	ND	[0.037, 1.83]

ANALYTICAL RESULTS
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Base	Site	MARCH		MARCH		MARCH		MARCH			
		NA	550-WSP01 07/27/2004 11:50	NA	550-WSP01 10/26/2004 15:05	NA	550-WSP03 07/27/2004 12:10	NA	550-WSP03 10/26/2004 15:20		
	Point										
	Sampling Date										
	Sample Depth	-									
	Sample Type	N1				N1					
	Field Sample	550-WSP1-WG20 E4G290157-002		550-WSP1-WG21 E4J270340-002		550-WSP3-WG15 E4G290157-005		550-WSP3-WG16 E4J270340-004			
	Lab Sample				PR / 1		PR / 1				
	PVC / Run										
	Status	Validated		Validated		Validated		Validated			
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result		
ethanol	SW8015B-DAI	mg/L	-	3.9	J	[5.0, 1]	-		3.5	J	[5.0, 1]
methanol	SW8015B-DAI	mg/L	-	ND		[5.0, 1]	-		ND		[5.0, 1]
diesel fuel #2	SW8015B-E	mg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	
jet fuel #4	SW8015B-E	mg/L	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	
unknown extract. hydrocarbon	SW8015B-E	mg/L	8.2	[1.0, 1]	7.9	[1.0, 1]	11	[1.0, 1]	8.2	[1.0, 1]	
gasoline	SW8015B-V	mg/L	14	[1.0, 10]	14	[2.5, 25]	18	[2.5, 25]	16	[1.0, 10]	
unknown volatile hydrocarbon	SW8015B-V	mg/L	ND	[1.0, 10]	ND	[2.5, 25]	ND	[2.5, 25]	ND	[1.0, 10]	

ANALYTICAL RESULTS
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Base Site Point	Sampling Date	MARCH		MARCH		MARCH		MARCH		MARCH		MARCH	
		NA	550-WSP01	NA	550-WSP02								
Sample Depth	-	07/27/2004 11:50	-	N1	-								
Sample Type	N1	-	550-WSP1-WG21	550-WSP2-WG20	FD1	550-WSP2-WG21	550-WSP2-WG22	N1	550-WSP2-WG23	N1	550-WSP2-WG25	N1	550-WSP2-WG25
Field Sample Lab Sample	E4G290157-002	E4G27340-002	E4G290157-003	E4G290157-004	E4H240190-002	E4H240190-004	E4H240190-002	E4H240190-003	E4H240190-002	E4H240190-003	E4H240190-002	E4H240190-003	E4H240190-002
PVC / Run Status	PR / 1	Validated	PR / 1	PR / 1	Validated	PR / 1							
Not Validated		Validated		Validated		Validated		Validated		Validated		Validated	
Method	Unit	Result	QA	[IRL, DFI]	Result	QA	[IRL, DFI]	Result	QA	[IRL, DFI]	Result	QA	[IRL, DFI]
Methyl tert-butyl ether (MTBE)	µg/L	950	[50, 50]	1100	[33, 33]	0.56	J	[1.0, 1]	0.59	J	[1.0, 1]	1.7	[1.0, 1]
methylene chloride	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
naphthalene	µg/L	120	[50, 50]	150	[33, 33]	ND	[1.0, 1]						
n-propylbenzene	µg/L	ND	[50, 50]	16 J	[33, 33]	ND	[1.0, 1]						
styrene	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,1,1,2-tetrachloroethane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,1,2,2-tetrachloroethane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
tetrachloroethene (PCE)	µg/L	ND	[50, 50]	1400	[33, 33]	ND	[1.0, 1]						
toluene	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,2,3-trichlorobenzene	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,2,4-trichlorobenzene	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,1,1-trichloroethane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,1,2-trichloroethane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1-chloroethene (1CE)	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2.0, 1]						
trichlorofluoromethane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,2,3-trichloropropane	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
1,2,4-trimethylbenzene	µg/L	480	[50, 50]	530	[33, 33]	ND	[1.0, 1]						
1,3,5-trimethylbenzene	µg/L	120	[50, 50]	150	[33, 33]	ND	[1.0, 1]						
vinyl chloride	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1.0, 1]						
m- & p-xylene	µg/L	1100	[50, 50]	1700	[33, 33]	ND	[1.0, 1]						
o-xylene	µg/L	700	[50, 50]	950	[33, 33]	ND	[1.0, 1]						

ANALYTICAL RESULTS
(Page 3 of 4)

Base	Site	MARCH			MARCH			MARCH			MARCH			MARCH		
		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Point	550-W-SP03	550-W-SP03	10/26/2004 15:20	FIELDQC 07/27/2004	FIELDQC 08/23/2004	FIELDQC 09/22/2004	FIELDQC 10/26/2004	FIELDQC 11/30/2004	-	-	-	-	-	-	-	
Sampling Date	07/27/2004 12:10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sample Depth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sample Type	N1	N1	N1	550-W-SP3-WG16	550-TB-WG20	550-TB-WG21	550-TB-WG22	550-TB-WG23	TB1	TB1	E4J270340-001	E4J270340-001	E4J270340-001	PR / 1	PR / 1	
Field Sample	550-W-SP3-WG15	550-W-SP3-WG16	550-TB-WG20	E4G290157-005	E4H240190-001	E4H240190-001	E4J270340-001	E4J270340-001	-	-	-	-	-	-	-	
Lab Sample	E4G290157-005	E4G290157-005	E4G290157-005	PR / 1	-	-	-	-	-	-	-					
PVC / Run	PR / 1	PR / 1	PR / 1	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
Analyte	Method	Unit	Result	QA [RL, DFI]	Result	QA [RL, DFI]	Result	QA [RL, DFI]	Result	QA [RL, DFI]	Result	QA [RL, DFI]	Result	QA [RL, DFI]	Result	QA [RL, DFI]
benzene	SW8260B	µg/L	1900	[50, 50]	2300	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
benzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
bromobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
bromochloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
bromodichloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
butanone	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
chloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	-	-	-	-	-	-	-	-	-	[25, 1]
chloroform	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
chlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
chloroethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
chloroform	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
chloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
carbon tetrachloride	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
chlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
chloroethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
chloroform	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
chloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
2-chlorotoluene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
4-chlorotoluene	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
1,2-dibromo-3-chloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
dibromochloromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
dibromomethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,2-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,3-dichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,4-dichlorobenzene	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]	ND	[2, 0, 1]
dichlorodifluoromethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,1-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,2-dichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,1,1-trichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
cis-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
trans-1,2-dichloroethene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,2-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,3-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
2,2-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
1,1-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
cis-1,3-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
trans-1,3-dichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
ethyl tert-butyl ether	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
ethylene dibromide (EDB)	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
hexachlorobutadiene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
isopropyl ether	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
isopropylbenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
p-isopropyltoluene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]
methyl tert-ary ether	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]	ND	[1, 0, 1]

ANALYTICAL RESULTS
(Page 4 of 4)

Base	MARCH			MARCH			MARCH			MARCH			MARCH		
	Site	NA	NA	NA	FIELDQC	NA	FIELDQC	NA	NA	FIELDQC	NA	FIELDQC	NA	NA	NA
Point	550-WSP03	550-WSP03	550-WSP03	07/26/2004 15:20	07/27/2004	-	08/23/2004	-	-	09/22/2004	-	10/26/2004	-	11/30/2004	NA FIELDQC
Sampling Date	07/27/2004 12:10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample Depth	N1	N1	N1	-	-	-	-	-	-	-	-	-	-	-	-
Sample Type	550-WSP3-WG15	550-WSP3-WG16	550-WSP3-WG16	E4:270340-004	550-TB-WG19	550-TB-WG20	550-TB-WG21	550-TB-WG22	TB1	TB1	TB1	TB1	TB1	TB1	TB1
Field Sample	E4Gz90157-005	-	-	-	E4G240190-001	E4H230395-001	E4I230340-001	E4I230395-001	-	-	-	-	-	-	-
Lab Sample	-	-	-	-	PR / 1	PR / 1	PR / 1	PR / 1	-	-	-	-	-	-	-
PVC / Run	PR / 1	-	-	-	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
Analyte	Method	Unit	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result	QA [RL, DF]	Result
methyl tert-butyl ether (MTBE)	SW8260B	µg/L	460	[50, 50]	620	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
methylene chloride	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
naphthalene	SW8260B	µg/L	110	[50, 50]	160	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
n-propylbenzene	SW8260B	µg/L	41 J	[50, 50]	39	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
styrene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2,2-tetrachloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
tetrachloroethene (PCE)	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
toluene	SW8260B	µg/L	2200	[50, 50]	2200	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,3-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trichlorobenzene	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,1-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2-trichloroethane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,1,2-trichloroethene (TCE)	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
trichlorofluoromethane	SW8260B	µg/L	ND	[100, 50]	ND	[67, 33, 33]	ND	[2.0, 1]	ND	[2.0, 1]	ND	[2.0, 1]	ND	[2.0, 1]	ND
1,2,3-trichloropropane	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,2,4-trimethylbenzene	SW8260B	µg/L	640	[50, 50]	700	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
1,3,5-trimethylbenzene	SW8260B	µg/L	150	[50, 50]	170	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
vinyl chloride	SW8260B	µg/L	ND	[50, 50]	ND	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
m- & p-xylene	SW8260B	µg/L	1800	[50, 50]	2000	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND
oxylene	SW8260B	µg/L	1100	[50, 50]	1300	[33, 33, 33]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND	[1.0, 1]	ND

Appendix B
Data Validation Reports

MEMORANDUM

Date: January 4, 2005

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – November Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4L010197 (water) and E4L010317 (air). Report E4L010317 was a full raw data package.

No qualifiers were assigned to the samples.

Duplicate agreement (air) was very good.

E4L010197

1. Method 8260B: Sample -002 (March-550-WSP2-WG25) was used as an MS/MSD although not requested on the COC. The recoveries for bromodichloromethane (1%) and chloroform (7%) were above the QC limits in the MSD, and 1,1-DCE recoveries were above the QC limits in both the MS and MSD (11% and 12%, respectively). This is most likely due to a spiking problem in the laboratory rather than matrix effect, and therefore the sample was not qualified. The laboratory has revised their spiking protocol for matrix spikes.

MEMORANDUM

Date: January 18, 2005

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – December Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4L280261 (water) and E4L280278 (air).

No qualifiers were assigned to the samples.

Duplicate agreement (water) was acceptable.

MEMORANDUM

Date: August 16, 2004

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – July Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4G290157 (water) and E4G290281 (air).

No qualifiers were assigned to the samples.

Duplicate agreement (water) was very good.

E4G290157

1. Method 8260: All of the samples in this shipment were noted as having bubbles larger than 5 mm upon arrival and log-in at the laboratory, except 1 vial for sample -03 and 1 vial for the trip blank (sample -01). However, a vial with headspace was used for the analyses for all the samples.

In cases where all the samples had bubbles larger than 5mm, the analyst has no choice but to use one of the vials with bubbles. However, when there are sample vials without bubbles, laboratory protocol requires that these vials be used first, and only in case of reruns should a vial with headspace be used. The analyst performing the analyses was a recent hire and did not follow laboratory protocol, but always used the vial labeled #1. An investigation and corrective action have been performed by the laboratory, and re-training of the analyst is part of the corrective action. Another part of the corrective action is that the analyst must initiate a nonconformance report when a vial with headspace >5mm is used, instead of just noting the deficiency in the analysis run log. This nonconformance will then be discussed in the case narrative.

In discussing the frequent appearance of bubbles in the samples as well as trip blanks, the laboratory noted that this problem appears to be worse during the hot summer months than in cooler weather.

MEMORANDUM

Date: September 17, 2004

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – August Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4H240190 (water) and E4H240194 (air).

No qualifiers were assigned to the samples.

No duplicates were collected.

E4G240194

1. Method 8260: One vial for the sample, MARCH-550-WSP2-WG22 was noted as having a bubble larger than 5 mm upon arrival and log-in at the laboratory. The vial with headspace was not used for the analysis.

MEMORANDUM

Date: November 2, 2004

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – September Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4I230395 (water) and E4I270258 (air).

No qualifiers were assigned to the samples.

No duplicates were collected.

E4I230395

1. Method 8260: The relative standard deviation (RSD) for naphthalene was >30% in the initial calibration. However, the analyte met the criteria for a linear calibration. Naphthalene was not detected in the sample, and no qualifier was assigned.

MEMORANDUM

Date: December 16, 2004

To: Bill Muir

From: Elisabeth Fruth

Subject: March ARB, CA, - Building 550 – Laboratory Reports – October Sampling

Guidance Documents: Final Work Plan and Quality Project Plan for the Basewide Remedial Investigation/Feasibility Study, March ARB CA (Earth Tech March 1999) and Variances to the March ARB Basewide Plan

We have reviewed the following reports from STL Los Angeles for the March ARB Building 550 project: E4J270340 (water) and E4J280162 (air).

No qualifiers were assigned to the samples.

No duplicates were collected.

E4J270340

1. Oxygenates were requested for two samples, MARCH-550-WSP1-WG21 and March-550-WSP3-WG16. Ethanol and Methanol were determined by Method 8015B w. direct aqueous injection (DAI) by STL Austin, TX. TBA, TAME, DIPE and ETME were reported as extra compounds by Method 8260B by STL Los Angeles. MTBE is regularly reported for that method.